

I now desire to present for consideration some clinical histories and practical remarks upon cases of eye diseases dependent upon abnormal menstruation, which have been under my care during the past nine years. As they are not very numerous I venture to report them fully, so that they may be studied critically. They only include cases of *eye diseases caused or complicated by suppression of menses*.

CASE I.—Fannie R., aged 22 years, single, domestic, United States, first came under my care at out-door department of Bellevue Hospital, New York City, June 30, 1873. She had had double-sight at intervals for two weeks past, and could not read or sew. She suffered with supra-orbital neuralgia. Two years previously she had suppression of menses. Since then her menses have been irregular, and the flow diminished in quantity. Vision of R. E. = $\frac{16}{200}$, of L. E. = $\frac{16}{80}$, and she could see small type ten inches. She was slightly myopic, but did not require glasses. Her pupils acted sluggishly under light. Ophthalmoscopic examination manifested appearances of well-marked neuro-retinitis. Free catharsis and bleeding of temples promptly improved her vision somewhat, and tonics her general health, when her menses became regular and she could again use her eyes. This improvement continued for several months, until suppression again occurred from getting her feet wet during "the flow," and again her eyes could not be used as desired. Several months later her menses again appeared and her eyes regained their normal condition. In March, 1875, she reported she had had a recurrence of partial suppression and eye troubles. In October, 1876, reported menses regular without any eye trouble, and her general health good, which continued a year later, the last report made to me.

CASE II.—Elizabeth H., German, aged 19 years, single, domestic, had been in United States over three years, came to "Bellevue Out-door Dept." July 6, 1874, for treatment for her eyes. At 14 years of age first had her menses, and not again until she was 18 years old, and the last time six or seven months previously. Eight days ago she began to have severe headaches, which prevented her sleeping well for several nights. She reported that when her headache was severe she had intense dread of light, but none without the pain in her head. Her near vision was good. Ophthalmoscopic examination revealed optic neuritis and retinal hyperæmia, which was more marked two days later, when she manifested symptoms of brain and spinal cord disease, and was sent to the hospital, passing from under observation.

CASE III.—Lucy J., aged 15, resident in New Jersey, came to the clinic at "Bellevue Out-door Dept." August 19, 1874, for dimness of her eyesight. She was very tall and large for her age. When five years old she had had a severe attack of external inflammation of her eyes (probably phlyctenular conjunctivitis). She has not been sick otherwise, excepting a weakness of her back, which began at 12 years of age. It was worse at time of menstruation, which began at 14 years of age, and she reported she had always been regular. About a year ago, when her menses first appeared, her eyesight began to grow dim, and has gradually grown worse. Six months ago frequent attacks of severe headache commenced, which lasted from half an hour to one hour. She had recently been treated at an eye infirmary by hypodermic injections of strychnia without beneficial effect. The vision of her R. E. = fingers ten feet, and read Sn. X — 4" to 6", L. E. V. = $\frac{20}{60}$, and read Sn. No. III. Ophthalmoscopic

examination manifested floating opacities in the vitreous humour of both eyes, which was much worse in the R. E., rendering its fundus somewhat indistinct, although its optic nerve looked very white. The L. E. manifested incipient disease of optic nerve and choroid. Leeches were ordered to be applied to her right temple. Two weeks later R. E. V. = $\frac{2}{30}$, and L. E. V. = $\frac{2}{30}$. Leeches applied to both temples, and tonic of syr. phosphate of iron, quinia, and strychnia ordered. Three weeks thereafter R. E. V. = $\frac{2}{30}$, and its fundus much more distinct, the floating opacities of vitreous smaller and less numerous. L. E. V. = $\frac{2}{30}$ minus, and its fundus clear. Leeches were again ordered to right temple, and to continue the tonic.

February 12, 1875, R. E. V. = $\frac{2}{30}$; L. E. V. = $\frac{2}{30}$, with fields of vision of both eyes limited above and internally. She reported that she had her menses last week, with severe headache for several hours daily for three days, and after it had great dimness of vision of L. E. for half an hour. July 21, 1876, she reported she had married and has a healthy baby. Vitreous of both eyes were clear, and R. E. V. = $\frac{2}{30}$; L. E. V. = $\frac{2}{30}$ minus.

CASE IV.—Miss B., aged 18, born in United States, was brought to my office by her family physician December 23, 1878. About seven months previously she began to have suppression of menses, which continued three months, when her eyes commenced to pain and manifest intolerance of light. Blistering her temples had been of temporary benefit, but relapses occurred at menstrual epochs. She has had double sight. Has now photophobia. Her pupils react fairly under light. R. E. V. = fingers five feet; L. E. V. = fingers six feet. Fields of vision of both eyes contracted, the L. E. more so than R. E. Ophthalmoscopic examination showed well-marked neuro-retinitis of both eyes, the fundus of L. E. being the one most inflamed. Advised leeches to temples, continuance of tonic, and an endeavour to secure a more free menstrual flow. She improved very little, and subsequently went to Philadelphia for treatment, where she unfortunately received no greater benefit, and her vision continues to be very greatly damaged.

CASE V.—Miss H., compositor, aged 18, born in United States, was brought by her father to me April 19, 1879, for painful and blurring vision, with frequent disturbances from double vision, which had prevented her using her eyes with comfort for months past. She had had a great deal of headache of late. Ascertained her menses were scanty and irregular, and she was subject to hysterical attacks. She had double sight (diplopia) to the right and left, and with R. E. alone. Her accommodative muscles were strained, as well as her internal and external recti. Ophthalmoscopic examination revealed congestion of her optic disks, also far-sightedness with astigmatism. Glasses could not be selected without suspending accommodation with a solution of atropia, which was done after five days' use of it. They relieved her of all double sight, and greatly improved her vision for all distances, but her eyes would not permit her to resume her work (type-setting) for fifteen months or longer, not until her menses were established regularly.

CASE VI.—Miss W., aged 29, born in United States, domestic, came to me January 5, 1881, for dimness of vision and pain in her L. E., which began two weeks previously. A week later it pained all day, and three days later its sight became decidedly dimmed.

Her menses were irregular and scanty. They came on the day before

the sight was affected. When first examined the vision of her R. E. = $\frac{12}{20}$ in the poor light of a dark rainy day, and the L. E. could only see the hand indistinctly one foot distant. Ophthalmoscopic examination showed inflammatory deposits upon the posterior layer of cornea and opacities of the vitreous humour. Dilated the pupil at once with a solution of atropia, which promptly relieved her pain somewhat, and continued its use. Ordered smoked glasses, bathing the eye with hot water, and leeches applied to her temple on several different occasions, and internally bichloride of mercury, as well as directions to promote free menstrual flow, which was continued for several months. Her menses became free and regular, and she fully recovered her eyesight.

CASE VII.—Miss M., aged 26, school-teacher, presented herself in June, 1881, with asthenopia (weak and painful eyesight), and blephrospasm (frequent and spasmodic closure of her eyelids), due to straining of her accommodation. She had congestion of optic disks and refractive eye trouble, profuse leucorrhœa, and scanty menses. Suspended her accommodation and selected glasses for her, which promptly and greatly relieved her eye troubles, and advised her to have her uterine troubles attended to, which was done with benefit. In the fall she resumed her school duties. Six or seven months later, after mental worry and return of womb troubles, she reported, by letter, that her eyes again annoyed her, but she has not been able to visit me again.

CASE VIII.—Miss P., aged 23, born in Canada, was brought by her father to me July 23, 1881, to have her eyes examined, because she could not use them beyond a few moments without experiencing much pain and discomfort, although her vision was good for those few moments for all distances. She had considerable intolerance of light. When ten to twelve years of age she had nervous attacks of a choreic nature, and was kept from school for a year and a half, nor has she been permitted to go much since. She reported she had for several years past a great deal of headache, and her eyes had been very weak, without any external inflammatory symptoms. She has irregular menstruation with partial suppression. Ophthalmoscopic examination showed marked congestion of both optic disks, the right one the most affected. Between three and four months treatment for suppression re-established menses, and greatly improved her general health. The congestion of optic disks was relieved, and glasses were selected to relieve her compound far-sightedness whilst the eyes were under the influence of a solution of duboisia, and they gave her much comfort for some months thereafter. I hear she continues to do well, and has experienced much improvement not only from her eye discomforts but in her general health.

CASE IX.—Miss W., aged 24, a school-teacher, on December 24, 1881, called to have me examine her L. E., which manifested a sub-conjunctival hemorrhage, that had occurred eight days previously, during the time of her menstrual flow, which was scanty. She stated she had had partial suppression of menses for many months past. Lately, at those periods she had experienced great and unusual fulness about head and eyes. Her vision was good for all distances. No intraocular hemorrhage was found by ophthalmoscopic examination, but a slight haziness of both retinæ and congestion of optic nerves. Advised rest of eyes, and bathing with hot water, and to consult her family physician about re-establishing normal menstruation.

CASE X.—Miss P., aged 17, a school-girl, was brought to me January 27, 1882, by her mother for weak and painful eyes when used. Externally they looked well and healthy, and she was plump, rosy, and quite strong-looking. Two years previously she began to have great annoyance from headache and pain in her eyes, and she has had to stop going to school twice within that time on account of those sufferings. She had double-sight at times. Has suppression of menses. Vision was good, but she could not continue the use of her eyes more than a few moments with comfort. She was far-sighted, and trial of weak glasses improved her vision promptly, and gave comfort to her eyes; they were ordered for her, and it was advised to have the family physician correct her suppression. Not having heard further from her, I presume she progressed favourably.

CASE XI.—Mrs. B., aged 20, married fifteen months, called to see me March 28, 1882, about “a mistiness of sight” and intolerance of light, of two weeks’ duration. She had slight conjunctivitis, and so much hyperæsthesia of retinae that her pupils contracted to such a small size, that ophthalmoscopic examination was impossible until they were dilated with a solution of atropia, when a haziness of the retinae and congestion of optic disks were manifested, with far-sightedness. She had had suppression of menses for seven weeks. Local treatment of conjunctivitis gave her only partial and temporary relief. April 28th began an alterative course of internal treatment, which afforded her marked relief until the time her menses should have occurred on May 8th, but they did not, and she relapsed. She then had had suppression three months, but no other symptoms indicating pregnancy. Leeches were ordered to her temples, and a continuance of the medicine internally. May 30th she reported the leeching relieved her eyes and head considerably, and on the 22d, her menses came on, and she has felt still more improvement. Examination shows less retinal haziness, and less congestion of optic disks.

CASE XII.—Miss N., aged 15 years, came to see me April 29, 1882, with double-sight of five months’ duration, and inability to use her eyes longer than a few moments on account of spasm of accommodative muscles. She had not been able to go to school for past five or six years because of headache. Two years ago she had suppression of menses for three months, and then a severe spell of sick headache, since which time her eyes have troubled her. She had congestion of optic disks. Suspension of accommodation, with a solution of duboisia for selection of glasses to correct her near-sightedness, promptly relieved her of double sight, spasm of accommodation, and headache, and seemed to afford her much comfort.

It will be observed that all the successive foregoing cases were unmarried persons, except No. XI., and she was never pregnant. That the majority of them experienced their troubles near the beginning of their menstrual functions, or shortly afterwards. That all but one of them, No. IX., which had the subconjunctival hemorrhage, manifested diseases of the interior of the eye, and generally of the fundus, the optic nerves or retinae or both of both eyes, the most sensitive and important parts of the eye. It is recorded that five of them manifested double sight, and it is remembered that several others did also. Relapses occurred so often at the time of menstrual disturbance that the connection between them seems most conclusive. Also, when normal menstruation was re-established and maintained, their eyes gave them no further trouble.

They were all relieved except Cases No. II. and No. IV. The former soon passed from observation with grave symptoms of a cerebro-spinal character. The latter, when first examined, manifested the greatest loss of vision of any of them; fingers could be counted from five to six feet only, and internal examination revealed considerable inflammatory exudation into papillæ and retinæ, which threatened their atrophy with loss of function beyond recovery. Cases of this kind demand prompt recognition as to their etiology (before vision is too much impaired by the internal eye disease) in order that they may be successfully treated and relieved. Partial loss of vision, and inability to use the eyes in young healthy-looking females, *without external eye disease*, always suggest to my mind the probabilities of menstrual disturbances, and it is inquired about. As many more cases could be presented as the foregoing; but it is decided not to do so because they were not fully recorded, and could only numerically enlarge the observations I wish to present. Young school-girls often manifest asthenopia (weak and painful sight) about the time their menses are being established, and especially if their menses become irregular from any cause, which may produce partial or complete suppression for an indefinite time. I will not further pursue this subject to present illustrative cases, but state that sometimes they manifest decided congestion of optic papillæ and retinæ, and others no internal eye lesion, with the exception of strain of their accommodation which is common to all of these cases, for they have some refractive deformity of their eyes, which, sooner or later, causes their muscles of accommodation to rebel from their over-taxing and too continuous work.

The irregularities of the menopause period is often complicated with asthenopia and pathological lesions of the fundus of the eye. Several cases of this nature, with disease of the optic nerve and retina from their incipency to their complete atrophy, have been under observation recently.

Only uncomplicated cases as to their etiology have been selected for this paper, and all others excluded for various reasons, but especially for brevity, and to definitely establish the intimate and practical relations existing between eye diseases and menstrual disorders.

ARTICLE V.

ON THE MILD FORMS OF CONTINUED FEVER WHICH PREVAIL IN WASHINGTON, WITH SUGGESTIONS AS TO THEIR NATURE. By W. W. JOHNSTON, M.D., Prof. of the Theory and Practice of Medicine, Medical Department of the Columbian University; one of the Physicians to the Children's Hospital.

THE forms of continued fever which prevail in Washington may be classed as follows:—

I. Cases of typhoid fever with well-defined pathognomonic symptoms.

the temperature reaching and being sustained at a high point— 104° F.—and above, during the fastigium, ending in recovery in from four to six weeks, or terminating fatally from cerebral or intestinal complications or from hyperpyrexia.

II. Milder cases of typhoid fever in which the attack is shorter, the number of the associated symptoms is fewer, and their intensity less marked. A typical fever curve lasting eighteen to twenty-eight days is accompanied by one or more characteristic symptoms of no great prominence. The temperature may be high, 104° , during the early days of the fastigium, but there is after the eighth to the twelfth day a tendency to decline, and the mean of the high points during the acme will not be above 102.5° . Death may occur from accidents, as intestinal hemorrhage or perforation, or from the exhaustion of a relapse.

III. The series of cases included under a third class are those which have none of the symptoms clearly indicative of typhoid fever; there are no evidences of cerebral or intestinal disorder; constipation is the rule. The evolution of the attack is usually slow, the convalescence tedious, and marked by anæmia, emaciation, and debility. The course of fever lasts eighteen to twenty-one days, but the highest point may not be above 102° . In many cases the body heat is so low that without the thermometer fever could oftentimes not be detected. Yet a careful study shows that there is a preservation throughout of the character of the typhoid type. The patient lies in bed suffering but little, and wondering why he is kept there, but an indiscretion in diet, or a relaxation of the discipline suited to the case, will soon cause an elevation of temperature, with a consciousness of illness. When quinine is administered it lowers the temperature, but does not arrest the disease. During early convalescence, if solid food be given too soon, a relapse may occur which lasts as long and may be more serious than the original attack. Death may result from accidents, as perforation of the intestine or hemorrhage.

IV. In this class are embraced cases which last less than eighteen days, in which the fever is also of the continued type. In most respects they resemble the cases under the preceding class, except that the onset of the illness is sometimes sudden; there may be a rigor on the first day. The fever line reaches full development earlier, and then pursues a course like that of the cases in Class III., with the exception that it does not last so long, and that it is subject to greater departures from the typhoid type. Convalescence begins in from twelve to eighteen days. If a high point of temperature is reached, it lasts for a day or two only, when the patient is subjected to proper treatment by rest and diet. Quinine does not shorten the attack. Convalescence is slow, and a relapse may take place.

All the forms of continued fever occurring in Washington may be placed under one or the other of these divisions. While the diagnosis of cases in Class I. and II. is easily and correctly made, much difference of opinion